

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A conductive polyaniline composition comprising:

(a) a protonated substituted or unsubstituted polyaniline complex, and

(b) a compound having a phenolic hydroxyl group,

wherein (a) and (b) ~~being~~ are dissolved in an organic solvent substantially immiscible with water.

Claim 2 (Original): The conductive polyaniline composition according to claim 1, wherein the substituted or unsubstituted polyaniline is a high-molecular weight component having a weight average molecular weight of 100,000 g/mol or more.

Claim 3 (Original): The conductive polyaniline composition according to claim 1, wherein the molar concentration of the compound (b) having a phenolic hydroxyl group in the total solution of the composition is 0.01 mol/l to 5 mol/l.

Claim 4 (Original): The conductive polyaniline composition according to claim 1, wherein the concentration of the protonated substituted or unsubstituted polyaniline complex (a) relative to the organic solvent is 0.01 to 300 g/l.

Claim 5 (Original): The conductive polyaniline composition according to claim 1, wherein the content of a substituted or unsubstituted polyaniline relative to the protonated substituted or unsubstituted polyaniline complex (a) is 20 wt% to 70 wt%.

Claim 6 (Currently Amended): The conductive polyaniline composition according to claim 1, wherein the protonated substituted or unsubstituted polyaniline complex (a) is a substituted or unsubstituted polyaniline protonated by an organic protonic acid or a salt thereof represented by the following formula (I),



wherein M is a hydrogen atom, or an organic or inorganic free radical;

X is an acidic group;

A is a hydrocarbon group which may have a substituent;

R is independently -R¹, -OR¹, -COR¹, -COOR¹, -CO(COR¹), or -CO(COOR¹),

[[()]]wherein R¹ is a hydrocarbon group with 4 or more carbon atoms which may have a substituent, silyl group, alkylsilyl group, -(R²O)x-R³, or -(OSiR³₂)x-OR³,

[[()]]wherein R² is an alkylene group, R³ is a hydrocarbon group and each occurrence [[(R³s)]] may be the same or different[[()]], and x is an integer of 1 or more)[]];

n is an integer of 2 or more; and

m is a valence of M.

Claim 7 (Currently Amended): The conductive polyaniline composition according to claim 6, wherein the organic protonic acid or the salt thereof represented by the formula (I) is a compound represented by the following formula (II),



wherein M is a hydrogen atom, or an organic or inorganic free radical;

X is an acidic group;

R⁴ and R⁵ are independently a hydrogen atom, hydrocarbon group, or R⁸₃Si-

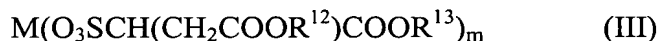
[[~~()~~]] wherein R^8 is a hydrocarbon group and each occurrence ~~[[~~(three R^8 s)~~]]~~ may be the same or different~~[[~~()~~]]~~;

R^6 and R^7 are independently a hydrocarbon group or $-(R^9O)_q-R^{10}$,

[[~~()~~]] wherein R^9 is a hydrocarbon group or silylene group, R^{10} is a hydrogen atom, hydrocarbon group, or R^{11}_3Si- , [[~~()~~]] wherein R^{11} is a hydrocarbon group and each occurrence ~~[[~~(three R^{11} s)~~]]~~ may be the same or different~~[[~~()~~]]~~, and q is an integer of 1 or more~~[[~~()~~]]~~; and

p is a valence of M .

Claim 8 (Currently Amended): The conductive polyaniline composition according to claim 7, wherein the organic protonic acid or the salt thereof represented by the formula (II) is a sulfosuccinate derivative represented by the following formula (III),



wherein M is a hydrogen atom, or an organic or inorganic free radical;

R^{12} and R^{13} are independently a hydrocarbon group or $-(R^{14}O)_r-R^{15}$,

[[~~()~~]] wherein R^{14} is a hydrocarbon group or silylene group, R^{15} is a hydrogen atom, hydrocarbon group, or R^{16}_3Si- , [[~~()~~]] wherein R^{16} is a hydrocarbon group and each occurrence ~~[[~~(three R^{16} s)~~]]~~ may be the same or different~~[[~~()~~]]~~, and r is an integer of 1 or more~~[[~~()~~]]~~; and

m is a valence of M .

Claim 9 (Original): The conductive polyaniline composition according to claim 6, wherein the protonated substituted or unsubstituted polyaniline complex (a) is obtained by chemical-oxidation polymerizing a substituted or unsubstituted aniline which contains the protonic acid or salt thereof represented by the formula (I).

Claim 10 (Currently Amended): A method for producing a protonated substituted or unsubstituted polyaniline, comprising chemical-oxidation polymerizing a substituted or unsubstituted aniline in a two-phase system of an aqueous solution and an organic solvent substantially immiscible with water to produce a protonated substituted or unsubstituted polyaniline complex soluble in the organic solvent substantially immiscible with water, the system containing an organic protonic acid or a salt thereof represented by the following formula (I),



wherein M is a hydrogen atom, or an organic or inorganic free radical;

X is an acidic group;

A is a hydrocarbon group which may have a substituent;

R is independently $-\text{R}^1$, $-\text{OR}^1$, $-\text{COR}^1$, $-\text{COOR}^1$, $-\text{CO}(\text{COR}^1)$, or $-\text{CO}(\text{COOR}^1)$,

[[(I)]] wherein R^1 is a hydrocarbon group with 4 or more carbon atoms which may have a substituent, silyl group, alkylsilyl group, $-(\text{R}^2\text{O})_x-\text{R}^3$, or $-(\text{OSiR}^3_2)_x-\text{OR}^3$,

[[(I)]] wherein R^2 is an alkylene group, R^3 is a hydrocarbon group and each occurrence [[(R^3s)]] may be the same or different[[(I)]], and x is an integer of 1 or more[[(I)]];

n is an integer of 2 or more; and

m is a valence of M.

Claim 11 (Currently Amended): The method according to claim 10, wherein the organic protonic acid or the salt thereof represented by the formula (I) is a compound represented by the following formula (II),



wherein M is a hydrogen atom, or an organic or inorganic free radical;

X is an acidic group;

R⁴ and R⁵ are independently a hydrogen atom, hydrocarbon group, or R⁸₃Si-

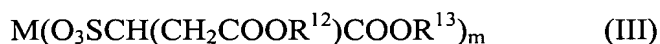
[[()]]wherein R⁸ is a hydrocarbon group and each occurrence ~~(three R⁸s may be~~
the same or different)[()]];

R⁶ and R⁷ are independently a hydrocarbon group or -(R⁹O)_q-R¹⁰,

[[()]]wherein R⁹ is a hydrocarbon group or silylene group, R¹⁰ is a hydrogen atom,
hydrocarbon group, or R¹¹₃Si- [[()]]wherein R¹¹ is a hydrocarbon group ~~(three~~
R¹¹s and each occurrence may be the same or different)[()], and q is an integer of
1 or more[()]; and

p is a valence of M.

Claim 12 (Currently Amended): The method according to claim 11, wherein the
organic protonic acid or the salt thereof represented by the formula (II) is a
sulfosuccinate derivative represented by the following formula (III),



wherein M is a hydrogen atom, or an organic or inorganic free radical;

R¹² and R¹³ are independently a hydrocarbon group or -(R¹⁴O)_r-R¹⁵,

[[()]]wherein R¹⁴ is a hydrocarbon group or silylene group, R¹⁵ is a hydrogen
atom, hydrocarbon group, or R¹⁶₃Si- [[()]]wherein R¹⁶ is a hydrocarbon group and
each occurrence ~~(three R¹⁶s may be the same or different))~~, and r is an integer of
1 or more[()]; and

m is a valence of M.

Claim 13 (Currently Amended): The conductive polyaniline composition according to claim 1, wherein the protonated substituted or unsubstituted polyaniline complex (a) is obtained by the method ~~of claim 10~~ comprising chemical-oxidation polymerizing a substituted or unsubstituted aniline in a two-phase system of an aqueous solution and an organic solvent substantially immiscible with water to produce a protonated substituted or unsubstituted polyaniline complex soluble in the organic solvent substantially immiscible with water, the system containing an organic protonic acid or a salt thereof represented by the following formula (I),



wherein M is a hydrogen atom, or an organic or inorganic free radical;

X is an acidic group;

A is a hydrocarbon group which may have a substituent;

R is independently -R¹, -OR¹, -COR¹, -COOR¹, -CO(COR¹), or -CO(COOR¹),

wherein R¹ is a hydrocarbon group with 4 or more carbon atoms which may have a substituent, silyl group, alkylsilyl group, -(R²O)_x-R³, or -(OSiR³)_x-OR³,

wherein R² is an alkylene group, R³ is a hydrocarbon group and each occurrence R³s may be the same or different, and x is an integer of 1 or more;

n is an integer of 2 or more; and

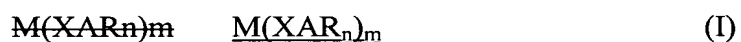
m is a valence of M.

Claim 14 (Original): The conductive polyaniline composition according to claim 1, wherein the compound (b) having a phenolic hydroxyl group is selected from the group consisting of phenol, o-, m-, or p-cresol, catechol, resorcinol, chlorophenol, salicylic acid, hydroxybenzoic acid, hydroxynaphthalene, phenol resins, polyphenol, and poly(hydroxystyrene).

Claim 15 (Currently Amended): The conductive polyaniline composition according to claim 1, wherein the organic solvent substantially immiscible with water is selected from the group consisting of hydrocarbon solvents such as benzene, toluene, xylene, ethylbenzene[(I)], and tetralin; halogen-containing solvents such as methylene chloride, chloroform, carbon tetrachloride, dichloroethane, trichloroethane, and tetrachloroethane; and ester solvents such as ethyl acetate.

Claim 16 (Currently Amended): A method for producing a conductive polyaniline composition comprising the steps of:

(i) chemical-oxidation polymerizing a substituted or unsubstituted aniline in an organic solvent substantially immiscible with water in the presence of an organic protonic acid or a salt thereof represented by the following formula (I) to produce a protonated substituted or unsubstituted polyaniline complex (a) soluble in the organic solvent,



wherein M is a hydrogen atom, or an organic or inorganic free radical;

X is an acidic group;

A is a hydrocarbon group which may have a substituent;

R is independently -R¹, -OR¹, -COR¹, -COOR¹, -CO(COR¹), or -CO(COOR¹),

[[(I)]]wherein R¹ is a hydrocarbon group with 4 or more carbon atoms which may have a substituent, silyl group, alkylsilyl group, -(R²O)_x-R³, or -(OSiR³₂)_x-OR³,

[[(I)]]wherein R² is an alkylene group, R³ is a hydrocarbon group [[(R³s)]] and each occurrence may be the same or different), and x is an integer of 1 or more[[(I)]];

n is an integer of 2 or more; and

m is a valence of M: and

(ii) adding a compound (b) having a phenolic hydroxyl group into the protonated substituted or unsubstituted polyaniline complex (a) dissolved in the organic solvent substantially immiscible with water.

Claim 17 (Currently Amended): The method according to claim 16, wherein the organic protonic acid or the salt thereof represented by the formula (I) is an organic protonic acid or the salt thereof represented by the following formula (II),



wherein M is a hydrogen atom, or an organic or inorganic free radical;

X is an acidic group;

R^4 and R^5 are independently a hydrogen atom, hydrocarbon group, or R^8_3Si- ,

[[~~([])~~wherein R^8 is a hydrocarbon group and each occurrence ~~(three R^8 s may be the same or different)~~[[~~]~~]];

R^6 and R^7 are independently a hydrocarbon group or $-(R^9O)_q-R^{10}$,

(wherein R^9 is a hydrocarbon group or silylene group, R^{10} is a hydrogen atom, hydrocarbon group, or R^{11}_3Si- [[~~([])~~wherein R^{11} is a hydrocarbon group and each occurrence ~~(three R^{11} s may be the same or different)~~[[~~]~~]], and q is an integer of 1 or more[[~~]~~]]; and

p is a valence of M.

Claim 18 (Currently Amended): A conductive molded article obtainable by forming the conductive polyaniline composition according to ~~any one of claims 1 to 9 and 13 to 15~~ Claim 1.

Claim 19 (Original): The conductive molded article according to claim 18 whose inherent conductivity is at least 50 S/cm.

Claim 20 (Currently Amended): A surface-electric-conductive product obtainable by applying to a substrate the conductive polyaniline composition according to Claim 1 ~~any one of claims 1 to 9 and 13 to 15, to a substrate.~~

Claim 21 (Original): The surface-electric-conductive product according to claim 20 whose specific surface resistance is at most $10^5 \Omega$.

Claim 22 (Original): The transparent surface-electric-conductive product according to claim 21 whose light transmission is 70% or more at 450 nm.

Claim 23 (Currently Amended): A method for producing a surface-electric-conductive product comprising:

applying to a substrate the conductive polyaniline composition according to claim 1 ~~any one of claims 1 to 9 and 13 to 15, to a substrate, and~~
forming the applied substrate.